



## INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

<b>(51) International Patent Classification <sup>7</sup> :</b>  <b>C12N 9/00</b>	<b>A2</b>	<b>(11) International Publication Number:</b> <b>WO 99/54459</b>  <b>(43) International Publication Date:</b> 28 October 1999 (28.10.99)
<b>(21) International Application Number:</b> PCT/US99/08547  <b>(22) International Filing Date:</b> 19 April 1999 (19.04.99)  <b>(30) Priority Data:</b> 60/082,404      20 April 1998 (20.04.98)      US 09/103,636      23 June 1998 (23.06.98)      US  <b>(71) Applicant:</b> RIBOZYME PHARMACEUTICALS, INC. [US/US]; 2950 Wilderness Place, Boulder, CO 80301-5411 (US).  <b>(72) Inventors:</b> THOMPSON, James, D.; 705 Barberry Circle, Lafayette, CO 80026 (US). BEIGELMAN, Leonid; 5530 Colt Drive, Longmont, CO 80503 (US). MCSWIGGEN, James, A.; 4866 Franklin Drive, Boulder, CO 80301 (US). KARPEISKY, Alexander; 420 Vernier Avenue, Lafayette, CO 80026 (US). BELLON, Laurent; 2946 Glenwood Drive, Boulder, CO 80301 (US). REYNOLDS, Mark; 3342 Vermont Place, Pleasanton, CA 94588 (US). ZWICK, Michael; 4138 Joni Lane, Loveland, CO 80207 (US). JARVIS, Thale; 3720 Smuggler Place, Boulder, CO 80303 (US). WOOLF, Tod; Suite 210, 4 Mechanic Street, Natick, MA 01760 (US). HAEBERLI, Peter; 705 7th Street, Berthoud, CO 80513 (US). MATULIC-ADAMIC, Jasenka; 760 South 42nd Street, Boulder, CO 80303 (US).		<b>(74) Agent:</b> WARBURG, Richard, J.; Lyon & Lyon LLP, Suite 4700, 633 West Fifth Street, Los Angeles, CA 90071-2066 (US).  <b>(81) Designated States:</b> AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZA, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).  <b>Published</b> <i>With declaration under Article 17(2)(a).</i> <i>Without abstract; title not checked by the International Searching Authority.</i>
<b>(54) Title:</b> NUCLEIC ACID MOLECULES WITH NOVEL CHEMICAL COMPOSITIONS CAPABLE OF MODULATING GENE EXPRESSION		

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## PATENT COOPERATION TREATY

## PCT

## DECLARATION OF NON-ESTABLISHMENT OF INTERNATIONAL SEARCH REPORT

(PCT Article 17(2)(a), Rules 13ter.1(c) and Rule 39)

Applicant's or agent's file reference 233/242-PCT	IMPORTANT DECLARATION	Date of mailing (day/month/year) 26/11/1999
International application No. PCT/US 99/08547	International filing date (day/month/year) 19/04/1999	(Earliest) Priority date (day/month/year) 20/04/1998
International Patent Classification (IPC) or both national classification and IPC C12N9/00A7		
Applicant RIBOZYME PHARMACEUTICALS, INC.		

This International Searching Authority hereby declares, according to Article 17(2)(a), that **no international search report will be established** on the international application for the reasons indicated below

1. ☐ The subject matter of the international application relates to:

- a. ☐ scientific theories.
- b. ☐ mathematical theories
- c. ☐ plant varieties.
- d. ☐ animal varieties.
- e. ☐ essentially biological processes for the production of plants and animals, other than microbiological processes and the products of such processes.
- f. ☐ schemes, rules or methods of doing business.
- g. ☐ schemes, rules or methods of performing purely mental acts.
- h. ☐ schemes, rules or methods of playing games.
- i. ☐ methods for treatment of the human body by surgery or therapy.
- j. ☐ methods for treatment of the animal body by surgery or therapy.
- k. ☐ diagnostic methods practised on the human or animal body.
- l. ☐ mere presentations of information.
- m. ☐ computer programs for which this International Searching Authority is not equipped to search prior art.

2. ☒ The failure of the following parts of the international application to comply with prescribed requirements prevents a meaningful search from being carried out:

☐ the description

☒ the claims

☐ the drawings


3. ☐ The failure of the nucleotide and/or amino acid sequence listing to comply with the standard provided for in Annex C of the Administrative Instructions prevents a meaningful search from being carried out:

☐ the written form has not been furnished or does not comply with the standard.

☐ the computer readable form has not been furnished or does not comply with the standard.

4. Further comments:

See FURTHER INFORMATION Sheet PCT/ISA/203

Name and mailing address of the International Searching Authority  European Patent Office, P.B. 5818 Patentlaan 2 NL-2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016	Authorized officer Andria Overbeeke-Siepkens
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## FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 203

In view of the large number and also the wording of the claims presently on file, which render it difficult, if not impossible, to determine the matter for which protection is sought, the present application fails to comply with the clarity and conciseness requirements of Article 6 PCT (see also Rule 6.1(a) PCT). In addition, present claims relate to an extremely large number of possible compounds. For example, claims 1-7 are defined solely by formulas I-VII comprising multiple variables. Moreover, the compounds covered by said formulas may further be modified in many ways (see claims 8-9, 17-18, 27-29, 84-107), or have different alternative structures (see claims 11-13, 19-21, 33-42). The more, claim 43 relating to enzymatic nucleic acids is defined by a desirable characteristic (the modulation of an estrogen receptor) which is considered as the result to be achieved. Dependent claims 51 and 78 are directed respectively to 1245 and 112 sequences for which no indication of a real activity is given. Consequently, the claims contain in general so many variables and permutations thereof that a lack of clarity (and conciseness) within the meaning of Article 6 PCT arises to such an extent as to render a meaningful search of the claims impossible. Consequently, no search report can be established for the present application.

The applicant's attention is drawn to the fact that claims relating to inventions in respect of which no international search report has been established need not be the subject of an international preliminary examination (Rule 66.1(e) PCT). The applicant is advised that the EPO policy when acting as an International Preliminary Examining Authority is normally not to carry out a preliminary examination on matter which has not been searched. This is the case irrespective of whether or not the claims are amended following receipt of the search report or during any Chapter II procedure. If the application proceeds into the regional phase before the EPO, the applicant is reminded that a search may be carried out during examination before the EPO (see EPO Guideline C-VI, 8.5), should the problems which led to the Article 17(2) declaration be overcome.